```
                     1                                                          60
Human        MATAGGGSGADPGSRGLLRLLSFCVLLAGLCRGNSVERKIYIPLNKTAPCVRLLNATHQI
Mouse        MATTRGGSGPDPGSRGLL-LLSFSVVLAGLCGGNSVERKIYIPLNKTAPCVRLLNATHQI
Drosophila   MEMR-----LNAASIWLL-ILSYGATIAQGER---TRDKMYEPIGG-ASCFRRLNGTHQT
C.elegans    ------------MKKWLV---IVLIIAGIRCDGFSDQVFRTLFIGEGNACYRTFNKTHEF
                     61                                                       114
Human        GCQSSISGDTGVIHVVEKEEDLQWVLTDG----P--NPPYMVLLESKHFTRDLMEKLKGR
Mouse        GCQSSISGDTGVIHVVEKEEDLKWVLTDG----P--NPPYMVLLEGKLFTRDVMEKLKGT
Drosophila   GCSSTYSGSVGVLHLINVEADLEFLLSSP----P--SPPYAPMIPPHLFTRNNLMRLKEA
C.elegans    GCQANRENENGLIVRIDKQEDFKNLDSCWNSFYPKYSGKYWALLPVNLIRRDTISQLKSS
                     117                                                      168
Human        TSRIAGLAVSLTK----P-SPASGFSPSVQCPNDGFGVYSNSYGPEFAHCREIQWNSLG-
Mouse        TSRIAGLAVTLAK----P-NSTSSFSPSVQCPNDGFGIYSNSYGPEFAHCKKTLWNELG-
Drosophila   GPKNISVVLLINR----T-NQMKQFSHELNCPNQYSGLNSTS-ETCDASNPAKNWNPWG-
C.elegans    -KCLSGIVLYNSGESIHPGDESTAASHDAECPNAASDYYLQDKNEEYCERKINSRGAITR
                     171                                                      228
Human        NGLAYEDFSFPIFLLEDENETKVIKQCYQDHNLSQNGSAPTFPLCAMQLFSHMHAVISTA
Mouse        NGLAYEDFSFPIFLLEDENETKVIKQCYQDHNLGQNGSAPSFPLCAMQLFSHMHAVISTA
Drosophila   TGLLHEDFPFPIYYIADLDQVTKLEKCFQDFNNHNYETHALRSLCAVEVKSFMSAAVNTE
C.elegans    DGLMKIDWRIQMVFIDNSTDLEIIEKCYSMFNKPKEDGSSGYPYCGMSFRLANMAAGNSE
                     232                                                      275
Human        TCMRR-SS----IQSTFSIN-PEIVCDPLSDYNVWSMLKP-----INTTGTLKP--DDRV
Mouse        TCMRR-SF----IQSTFSIN-PEIVCDPLSDYNVWSMLKP-----INTSVGLEP--DVRV
Drosophila   VCMRR-TN----FINNLGG---SKYCDPLEGRNVSPPCTPESQQSETTLETVHT--NEKF
C.elegans    ICYRRGKNDAKLFQMNIDSGDAPQLCGAMHSDNIFAFPTP-----IPTSPTNETIITSKY
                     278                                                      330
Human        VVAATRLDSRSFFWNVAPGAESAVASFVTQLAAAEAL----QKAPDVTTL-PRNVMFVFF
Mouse        VVAATRLDSRSFFWNVAPGAESAVASFVTQLAAAEAL----HKAPDVTTL-SRNVMFVFF
Drosophila   ILVTCRLDTTTMFDGVGLGAMDSLMGFAVFTHVAYLLK---QLLPPQSKD-LHNVLFVTF
C.elegans    MMVTARMDSFGMIPEISVGEVSVLTSIISVLAAARSMGTQIEKWQKASNTSNRNVFFAFF
                     331                                                      384
Human        QGETFDYIGSSRMVYDMEKGKFP----VQLENVD--SFVELGQVALRTSLELWMHTDPVS
Mouse        QGETFDYIGSSRMVYDMENGKFP----VRLENID--SFVELGQVALRTSLDLWMHTDPMS
Drosophila   NGESYDYIGSQRFVYDMEKLQFP----TESTGTPPIAFDNIDFMLDIGTLDDISNIKLHA
C.elegans    NGESLDYIGSGAAAYQMENGKFPQMIRSDRTHIHPIRPNELDYILEVQQIGVAKGRKYYV
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FIGURE 1A

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                331                                                     384
Human       QGETFDYIGSSRMVYDMEKGKFP----VQLENVD--SFVELGQVALRTSLELWMHTDPVS
Mouse       QGETFDYIGSSRMVYDMENGKFP----VRLENID--SFVELGQVALRTSLDLWMHTDPMS
Drosophila  NGESYDYIGSQRFVYDMEKLQFP----TESTGTPPIAFDNIDFMLDIGTLDDISNIKLHA
C.elegans   NGESLDYIGSGAAAYQMENGKFPQMIRSDRTHIHPIRPNELDYILEVQQIGVAKGRKYYV
                385                                                     439
Human       QK-NESVRN---QVEDLLATLEKSGAGVPAVILRRPNQSQPLPPSSLQRFLR-ARNISGV
Mouse       QK-NESVKN---QVEDLLATLEKSGAGVPEVVLRRLAQSQALPPSSLQRFLR-ARNISGV
Drosophila  LN-GTTLAQ---QILERLNNYAKS-PRYGFNLNIQSEMSAHLPPTSAQSFLRRDPNFNAL
C.elegans   HVDGERYQQNKTQTDRVIDRIERGLRSHAFDLEKPSGSGDRVPPASWHSFAKADAHVQSV
                440                                                     491
Human       VLADHSGAFHNKYYQSIYDTAENINVSYP----EWLSPEEDLNFVTDT----AKALADVA
Mouse       VLADHSGSFHNRYYQSIYDTAENINVTYP----EWQSPEEDLNFVTDT----AKALANVA
Drosophila  ILNARP---TNKYYHSTYDDADNVDFTYANTSKDFTQLTEVNDFKSLNPDSLQMKVRNVS
C.elegans   LLAPYG---KEYEYQRVNSILDKNEWTED----EREKAIQEIEAVSTA---ILAAAADYV
                492                                                     550
Human       TVLGRALYELAGGTNFSDTVQADPQTVTRLLYG-FLIKANNSWFQSILRQDLRSYLGDGP
Mouse       TVLARALYELAGGTNFSSSIQADPQTVTRLLYG-FLVRANNSWFQSILKHDLRSYLDDRP
Drosophila  SIVAMALYQTITGKEYTGTKVANPLMADEFLYC-FLQSADCPLFKAASYPGSQ--LTNLP
C.elegans   GVETDEVVAKVD-KKLITTIFDCLITSNFWFDCDFMQKLDGGRYHKLFNSYGFNQKSTYI
                551                                                     608
Human       LQHYIAVS--SPTNTTYVVQYALANLTGTVVNLTREQCQDPSKVPSENKDLYEYSWVQGP
Mouse       LQHYIAVS--SPTNTTYVVQYALANLTGKATNLTREQCQDPSKVPNESKDLYEYSWVQGP
Drosophila  PMRYISVLGGSQESSGYTYRLLGYLLSQLQPDIHRDNCTD---LP-----LHYFAG----
C.elegans   SMESHTAF---PTVLHWLTIFALGSDKETLNVKSEKSCSHLGQFQ---AMYTYTWQPNP
                609                                                     665
Human       LHSNETDRLPRCVRSTARLARALSPAFELS---QWSSTEYSTWTESRWKDIRARIFLIAS
Mouse       WNSNRTERLPQCVRSTVRLARALSPAFELS---QWSSTEYSTWAESRWKDIQARIFLIAS
Drosophila  FN-N----IGECRLTTQNYSHALSPAFLIDGY-DWSSGMYSTWTESTWSQFSARIFLRPS
C.elegans   YTGN-----FSCLKSAIVKKVMVSPAVDSQTPEEEMNTRYSTWMESVYIIESVNLYLMED
                666                                          709
Human       KELELITLTVGFG-ILIFSLIVTYCINAKADVLFIAPREPGAVSY-
Mouse       NELEFITLIVGFS-TLVFSLIVTYCINAKADVLFVAPREPGAVSY-
Drosophila  NVHQVTTLSVGIV-VLIISFCLVYIISSRSEVLFEDLPASNAALFG
C.elegans   ASFEYTMILIAVISALLSIFAVGRCSETTFIVDEGEPAAEGGEPL-
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FIGURE 1B